

NOVEMBER/DECEMBER 2024

**FABC15C/CABC15C/BABC15C —
BIOCHEMISTRY I (Allied)**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.



1. How do you identify an anomeric carbon?
2. State the D and L enantiomers.
3. How do you increase protein solubility?
4. Is alanine polar or nonpolar?
5. Which structure of protein is highly stable?
6. How do peptide bonds affect protein structure?
7. Is cholesterol a lipid?
8. What causes low bile production?
9. An ATP is polynucleotide — Note two points.
10. What are codons and Anticodons?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write the function of disaccharides.

Or

(b) Explain the main function of polysaccharides.

12. (a) Explain in brief about the reaction between ninhydrin and amino acid.

Or

(b) Write the acidic and basic properties of amino acid.

13. (a) Discuss the tertiary structure of proteins.

Or

(b) Demonstrate the different classes of protein according to its solubility.

14. (a) Distinguish between simple and compound lipids.

Or

(b) Write in brief about the bile salts and bile pigments.

15. (a) Sketch the Watson and Crick model of DNA.

Or

(b) Distinguish between nucleotide and nucleoside.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain in detail about Haworth structures of monosaccharides.

17. What is isoelectric point and why is isoelectric pH of protein important in isolation?

18. Describe the physical properties of protein.

19. Compile the physical and chemical properties of fats.

20. Write in elaborate the structure, function and types RNAs.